

Department of Planning and Budget 2005 Fiscal Impact Statement

1. Bill Number HB1849

House of Origin	<input checked="" type="checkbox"/> Introduced	<input type="checkbox"/> Substitute	<input type="checkbox"/> Engrossed
Second House	<input type="checkbox"/> In Committee	<input type="checkbox"/> Substitute	<input type="checkbox"/> Enrolled

2. Patron Eisenberg

3. Committee General Laws

4. Title Department of General Services; light-colored roofing and

- 5. Summary/Purpose:** Requires the Department of General Services, Division of Purchases and Supply (DPS) to adopt regulations that require state public bodies to procure only light-colored materials for paving state parking lots and to provide for waivers of this requirement when DPS determines that a bona fide operational, temporary, safety, or specific aesthetic need is indicated or that such paving materials are not cost effective over the life cycle of the materials. The bill also requires the Division of Engineering and Buildings (DEB) to adopt standards requiring the installation of light-colored roofing materials during construction of new state buildings and for replacement roofing on existing state buildings to ensure energy savings and reduce reflective heat. The roofing standards shall include provision for waivers of this requirement when DEB determines that a bona fide operational, temporary, safety, or specific aesthetic need is indicated or that such roofing materials are not cost effective over the life cycle of the materials.
- 6. Fiscal Impact Estimates are:** Indeterminate. Increases in the cost of construction are anticipated. In addition, the light colored paving and roofing could result in increased annual maintenance costs to clean and maintain a light color. See relative cost comparisons in Item 8 below.
- 7. Budget amendment necessary:** Yes. Increased construction budgets for all buildings by two percent or more depending on size of building and scope of work.
- 8. Fiscal implications:** In the short term, paving costs could be expected to rise approximately 57 percent and roofing costs could be expected to rise between eight and 36 percent. The cost increases may be offset by reduced energy costs.

Light Colored Paving – Asphalt paving is not available in light colors but is available with dark colored admixtures. Comparative prices are
Regular Asphalt paving = \$3.50 per square foot
Colored asphalt topping = \$5.50 per square foot
Concrete paving = \$5.50 per square foot
Initial cost increase is approximately 57 percent

Light Colored Roofing Materials – Material selected is dependent on the building location, environment, adjacent exhaust fumes, and roof slope. Comparative prices are

Built up (asphalt) roofing = \$3.00 per square foot

Add light cap sheet = \$3.00 + \$1.00 per square foot = \$4.00 per square foot

Chlorosulfonated Polyethylene (CSPE) single ply (white) = \$3.70 per square foot

Ethylene Propylene Diene Monomer (EPDM) single ply (white) = \$3.25 per square foot

Modified Bitumen with White cap sheet = \$4.10 per square foot

Reinforced Polyvinyl Chloride (PVC) (white) = \$3.25 per square foot

Initial cost increase is approximately eight to 36 percent

Dark roofs could also be painted once every four years to give the desired effect at a relative added cost of \$1.00 per square foot for each application if the light roofs are justified.

If benefits of light colored paving or roofing materials are to be realized after the first year then cleaning and maintenance would be required to maintain the light color by removing dirt, mud, oil, and grime. Approximate relative cost is \$0.25 per square foot and escalated annually. Buildings with light-colored roofing materials better reflect sunlight and thus reduce peak roof temperatures. This can reduce air-conditioning costs and improve the durability and life of the roof.

- 9. Specific agency or political subdivisions affected:** All state agencies and institutions that have or may have buildings will be affected. The Department of General Services will have to establish policies and process requests for waivers. It will incur some costs for doing this.

10. Technical amendment necessary: No.

11. Other comments: None.

Date: 01/11/05 / rtb

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cc: Secretary of Finance
Secretary of Administration